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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,380	02/28/2002	Daniel G. Chain	20555/1203301-US3	3496

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EXAMINER
BALLARD, KIMBERLY A

ART UNIT	PAPER NUMBER
1649	

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,380	CHAIN, DANIEL G.	
	Examiner	Art Unit	
	Kimberly A. Ballard	1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14,19,20,25,55,56,72,75,77-80 and 83-86* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14,19,20,25,55,56,72,75,77-80 and 83-86* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Application, Amendments and/or Claims

1. Applicant's response and amendment to claims 14, 20, 55, 56, 72, 75, 77 and 83 filed on June 30, 2006 have been entered. Following the amendment, claims **14, 19, 20, 25, 55, 56, 72, 75, 77-80** and **83-86** are pending and under examination in the instant office action.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Any objection or rejection of record, which is not expressly repeated in this action has been overcome by Applicant's response and withdrawn.

Priority

4. Applicant asserts at pages 6-7 of the response filed 06/30/2006 that the currently amended claims are entitled to a priority date of April 9, 1997, based on priority claimed to prior application nos. 09/402,820, which is the national stage of PCT/US98/06900, filed April 9, 1998, and the provisional application no. 60/041,850, filed April 9, 1997. Applicant asserts that support for the amended claim limitation of treating Alzheimer's disease by contacting soluble amyloid β peptide in the cerebrospinal fluid of an Alzheimer's patient can be found in the above applications (particularly, Applicant notes, at page 10, lines 15-21 and page 13, lines 17-26 of the provisional '850 application), and accordingly, Applicant asserts that the instant claims are entitled to a priority date that is the filing date of the provisional application, i.e., April 9, 1997.

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) has been noted. However, Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e) or under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosures of the prior-filed applications are directed to methods of treating Alzheimer's Disease (AD) via gene therapy, comprising delivering a gene encoding an "antisenilin molecule" (i.e., "a recombinant antibody molecule end-specific for the N-terminus or the C-terminus of an Aβ peptide") to a patient. However, the instant invention is not drawn to gene therapy methods; the instant invention is drawn to methods of treating AD "comprising the step of administering an antibody molecule" (see paragraph [002], lines 14-16 of the instant application). Moreover, at the time the disclosed invention in the '850 provisional application was filed, gene therapy was (and continues to be) a highly unpredictable art with regard to therapeutic effects. Accordingly, the disclosures of the prior-filed applications, Application Nos. 60/041,850 (filed 04/09/1997), PCT US98/06900 (filed 04/09/1998), and 09/402,820 (filed 10/12/1999), fail to provide adequate support or enablement in the manner provided by

the first paragraph of 35 U.S.C. 112 for the instant invention. Hence, the instant application is correctly designated as a CIP of application no. 09/402,820, and thus the amended instant claims, which consist of subject matter that has not been disclosed prior to the filing of the instant application, are given a priority date of **February 28, 2002** (the filing date of the instant application).

Withdrawn Objections and Claim Rejections

5. The objection to claims 89-92 as set forth at p. 3 of the previous office action mailed 03/03/2006 is rendered moot in view of the cancellation of the claims.

6. The rejection of claims 14, 19-20, 25, 51-52, 55-56, 59-60, 63-64, and 71-92 under USC 112, first paragraph, as set forth at pp. 3-6 of the previous office action (mailed 03/03/2006) is withdrawn in view of Applicant's amendments to the claims.

7. The rejection of claims 14, 19, 20, 25, 72, 77, 80, 83, and 86 under 35 USC 102(b) as being anticipated by US Patent No. 5,786,180 to Konig et al., as set forth at pp. 6-8 of the previous office action (mailed 03/03/2006) is withdrawn in view of Applicant's amendments to the claims. Konig does not disclose an antibody that is free-end specific for either a free N-terminus of Aβ or a free C-terminus of Aβ1-40. The rejection of claims 59-60, 63-64, 71, 73, 74, 76, 82, and 88-92 is rendered moot in view of Applicant's cancellation of said claims.

8. The rejection of claims 51, 52, 81, 87, 89 and 90 under 35 USC 102(b) as being anticipated by Bard et al., as set forth at pp. 8-10 of the previous office action (mailed 03/03/2006), is rendered moot in view of Applicant's cancellation of said claims.

9. The rejection of claims 51, 52, 59, 60, 63, 64, 71, 73, 74, 76, 81, 82, and 87-92 under 35 USC 102(e) as being anticipated by US Patent 6,787,637 to Schenk, as set forth at pp. 10-11 of the previous office action (mailed 03/03/2006), is rendered moot in view of Applicant's cancellation of said claims.

Maintained Claim Rejections

Claim Rejections - 35 USC § 102

10. The rejection of claims 14, 19, 20, 25, 55, and 56 under 35 U.S.C. 102(b) as being anticipated by Bard et al. (2000) as set forth at pp. 8-10 of the 03/03/2006 office action is maintained for reasons of record.

Applicant argues that Bard does not qualify as prior art to the amended claims reciting a method comprising contacting soluble Aβ peptide in the CSF of an Alzheimer's patient.

Applicant's argument has been fully considered but it is not found persuasive. As noted in section 4 above, the instant claims, even with their amendments, are given the priority date of February 28, 2002. As such, Bard et al. (2000) still qualifies as 102(b) prior art. Additionally, as there is nothing in the claimed methods as written that would distinguish them from the method of administering the antibody (such as the 3D6

monoclonal antibody) for the reduction of amyloid-β peptide plaques as taught by Bard, the method of Bard would inherently contact soluble Aβ peptide in the cerebrospinal fluid of the patient. For example, Bard specifically states that the peripherally administered antibodies were able to enter the central nervous system (see Abstract and Figure 2). Accordingly, such antibodies would be intrinsically be capable of contacting soluble amyloid-β peptide in the CSF and inhibiting the accumulation/neurotoxicity of Aβ in the brain of the subject.

11. The rejection of claims 14, 19, 20, 25, 55, 56, 72, 75, 77, 80, 83, and 86 under 35 U.S.C. 102(e) as being anticipated by US Patent 6,787,637 to Schenk as set forth at pp. 10-11 of the 03/03/2006 office action is maintained for reasons of record.

Applicant argues that Schenk does not qualify as prior art to the amended claims reciting a method comprising contacting soluble Aβ peptide in the CSF of an Alzheimer's patient.

Applicant's argument has been fully considered but it is not found persuasive. As noted in section 4 above, the instant claims, even with their amendments, are given the priority date of February 28, 2002. As such, Schenk still qualifies as 102(e) prior art. Additionally, as there is nothing in the claimed methods as written that would distinguish them from the method of administering an antibody (such as the 3D6 monoclonal antibody) in a method of treating Alzheimer's disease as taught by Schenk, the method of Schenk would inherently contact soluble Aβ peptide in the cerebrospinal fluid of the patient. For example, Schenk teaches that the peripherally administered antibodies

were able to gain access to the central nervous system (see column 62, lines 51-59). Accordingly, such antibodies would be intrinsically be capable of contacting soluble amyloid-β peptide in the CSF and inhibiting the accumulation/neurotoxicity of Aβ in the brain of the subject.

Claim Rejections - 35 USC § 103

12. The rejection of claims 78, 79, 84, and 85 under 35 U.S.C. 103(a) as being obvious over Schenk ('637 patent) in view of Saido et al. (1996) and Harigaya et al. (2000), as set forth at pp. 12-15 of the previous office action, is maintained for reasons of record. Additionally, claims 77, 80, 83, and 86, as amended, are included in this rejection for reasons of record.

Applicant argues that Schenk does not qualify as prior art to the amended claims reciting a method comprising contacting soluble Aβ peptide in the CSF of an Alzheimer's patient, nor is Harigaya prior art to the pending claims.

Applicant's argument has been fully considered but it is not found persuasive. As noted in section 4 above, the instant claims, even with their amendments, are given the priority date of February 28, 2002. As such, Schenk would still qualify as a 102(e)-type prior art reference and Harigaya would still qualify as a 102(b)-type prior art reference. Additionally, the method of administering an antibody for the treatment of Alzheimer's disease as taught by the combined references would result in the antibody contacting soluble Aβ peptide in the CSF of the patient, as Schenk teaches that such antibodies are capable of crossing the blood-brain barrier and gaining access to the CNS (see

section 11 above). Accordingly, the combined references render obvious instant claims 77-80 and 83-86.

New Grounds of Rejection Necessitated by Amendment

Claim Rejections - 35 USC § 112, second paragraph

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 14, 19, 20, 25, 55, 56, 72, 75, 77-80, and 83-86, as amended, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15. Claims 14, 20, 77 and 83 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the step of delivery of a free-end specific anti-Aβ antibody to a patient. As currently written, it is unclear how the claimed antibody is meant to contact amyloid β peptide in the CSF of the patient if the antibody is not first administered to the patient. Without a delivery or administration step, the method, as currently amended, reads upon a patient's own auto-antibodies directed against a free-end specific Aβ peptide contacting Aβ peptide in the patient, and as such does not distinguish itself from a naturally-occurring process. In other words, it is unclear how the antibody gets into the patient in order to effect the claimed method. Additionally, because the delivery of the antibody is missing, the

contacting step is indefinite and thus open to interpretation as to where the contacting step occurs. For example, it is unclear whether the contacting would occur *in vivo* or *ex vivo*, such as if the CSF of the patient was extracted, contacted with the antibody *ex vivo* and then replaced, as in a filtration method. Such variability in the interpretation of the claims only serves to underscore the indefiniteness of the claimed method. Accordingly, Applicant is strongly encouraged to rewrite the claims.

16. Claims 14, 20, 77 and 83, as amended, recite the limitation "said subject" in line 6 of each claim. There is insufficient antecedent basis for this limitation in the claims because the claims recite the term “patient” prior to the appearance of the term “subject.”

17. Claims 19, 25, 55, 56, 72, 75, 78-80, and 84-86 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for being dependent from indefinite rejected claims 14, 20, 77, and 83.

Conclusion

18. No claims are allowed.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Advisory Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly A. Ballard whose telephone number is 571-272-4479. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Ballard, Ph.D.
September 6, 2006

OLGA N. CHERNYSHEV, PH.D.
PRIMARY EXAMINER